

Remarks

The Office Action dated November 16, 2005 has been carefully reviewed and the foregoing amendments have been made as a consequence thereof.

Claims 1-5 and 7-32 are now pending in this application. Claims 1-5 and 7-29 stand rejected. Claim 6 has been canceled without prejudice, waiver, or disclaimer. Claims 30-32 have been newly added. Claims 1, 12, and 22 have been amended. No new matter has been added. A fee calculation sheet for the newly added claims has been submitted herewith.

The rejection of Claims 1-5 and 7-29 under 35 U.S.C. § 103(a) as being unpatentable over Koether (U.S. Patent 5,875,430) in view of Andruzzi, Jr. et al. (U.S. Patent 4,580,256) is respectfully traversed.

Koether describes a plurality of kitchen base stations (150). Each kitchen base station 150 ($B_1 - B_6$) may interrogate a corresponding controller (140) of an appliance ($A_1 - A_{11}$) or the controller may request to transmit diagnostic information relating to a plurality of operating conditions of the kitchen appliances, which diagnostic information may be immediately communicated to a control center (170) (column 4, lines 25-28, column 5, lines 60-65). The kitchen base stations each includes a microprocessor (167) that controls a plurality of activities of the base station and communication among the appliances and the kitchen base stations (column 7, lines 54-57). Decisions are made by the microprocessor in accordance with data received from the control center (column 7, lines 57-59). The microprocessor is also provided with terminal keyboard and display unit (155) that allows a user to exchange information with the appliances as well as with the control center (column 7, lines 59-62).

Andruzzi, Jr. et al. describe an amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme (column 1, lines 53-60). The ASK/FSK scheme encodes for a logical one, or mark, one unique frequency, or tone, and similarly a logical zero, or space, is designated by the use of a second unique frequency, or tone, in both

the transmitting and receiving of data (column 1, lines 53-60). Furthermore, the ASK/FSK scheme includes receiving the unique logical-one frequency for a set, predetermined period of time which at most is assigned an equivalence of one-half the total digital bit period of the "1" (column 1, lines 64-67). In a like manner, the second, distinct logical-zero frequency, or tone, is held "on" for a period of time less than or equal to one-half the total digital bit period of the "0" (column 2, lines 3-6). Implementation of the ASK/FSK scheme is accomplished by a modem (column 2, lines 11-14).

Claim 1 recites a method of performing service diagnostics on appliances, the method comprising "connecting a diagnostic interface within a building housing the appliance to a local area appliance network, wherein the diagnostic interface includes a display; accessing an appliance in the local area appliance network; performing service diagnosis of the appliance through said diagnostic interface over the local area appliance network using service functions in the appliance; implementing the diagnostic interface within a single device including the display, a processing circuitry generating service commands to perform the service diagnosis, and a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line; and adjusting, by the diagnostic interface, a characteristic of the appliance via the power line carrier modem."

Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest a method of performing service diagnostics on appliances as recited in Claim 1. Specifically, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest adjusting, by the diagnostic interface, a characteristic of the appliance via the power line carrier modem. Rather, Koether describes interrogating a corresponding controller of an appliance, requesting, by the controller, to transmit diagnostic information relating to a plurality of operating conditions of the kitchen appliances, and communicating the diagnostic information to a control center. Koether further describes controlling, by a microprocessor included within a kitchen base station, a plurality of activities of the base station and communication among the appliances and the kitchen base stations. Accordingly,

Koether does not describe or suggest the power line carrier modem as recited in Claim 1. Andruzzi, Jr. et al. describe implementing, by a modem, an amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The ASK/FSK scheme encodes for a logical one, or mark, one unique frequency, or tone, and similarly a logical zero, or space, is designated by the use of a second unique frequency, or tone, in both the transmitting and receiving of data. Furthermore, the ASK/FSK scheme includes receiving the unique logical-one frequency for a set, predetermined period of time which at most is assigned an equivalence of one-half the total digital bit period of the "1". In a like manner, the second, distinct logical-zero frequency, or tone, is held "on" for a period of time less than or equal to one-half the total digital bit period of the "0." A description of implementing the ASK/FSK scheme does not describe or suggest adjusting a characteristic of the appliance. Accordingly, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest adjusting, by the diagnostic interface, a characteristic of the appliance via the power line carrier modem. For at least the reasons above, Claim 1 is respectfully submitted to be patentable over Koether in view of Andruzzi, Jr. et al.

Claims 2-5 and 7-11 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-5 and 7-11 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 and 7-11 likewise are patentable over Koether in view of Andruzzi, Jr. et al.

Claim 12 recites a diagnostic interface for performing service diagnostics on appliances, the diagnostic interface comprising "a display for viewing diagnostic and service information; processing circuitry for generating service commands for an appliance; and a power line carrier communication interface configured to be connected to a local area appliance network within a building housing the appliance, wherein said power line carrier communication interface facilitates transmitting the service commands to the appliance and receiving appliance diagnostic results on a power line carrier communication system, and said diagnostic interface implemented within a single device including said display, said

processing circuitry generating the service commands to service the appliance, and said power line communication interface configured to modulate data to communicate the data over an alternating current (AC) power line, wherein said diagnostic interface configured to adjust a characteristic of the appliance via said power line carrier communication interface.”

Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest a diagnostic interface for performing service diagnostics on appliances as recited in Claim 12. Specifically, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostic interface configured to adjust a characteristic of the appliance via the power line carrier communication interface. Rather, Koether describes interrogating a corresponding controller of an appliance, requesting, by the controller, to transmit diagnostic information relating to a plurality of operating conditions of the kitchen appliances, and communicating the diagnostic information to a control center. Koether further describes controlling, by a microprocessor included within a kitchen base station, a plurality of activities of the base station and communication among the appliances and the kitchen base stations. Accordingly, Koether does not describe or suggest the power line carrier communication interface as recited in Claim 12. Andruzzi, Jr. et al. describe implementing, by a modem, an amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The ASK/FSK scheme encodes for a logical one, or mark, one unique frequency, or tone, and similarly a logical zero, or space, is designated by the use of a second unique frequency, or tone, in both the transmitting and receiving of data. Furthermore, the ASK/FSK scheme includes receiving the unique logical-one frequency for a set, predetermined period of time which at most is assigned an equivalence of one-half the total digital bit period of the "1". In a like manner, the second, distinct logical-zero frequency, or tone, is held "on" for a period of time less than or equal to one-half the total digital bit period of the "0." A description of implementing the ASK/FSK scheme does not describe or suggest the diagnostic interface configured to adjust a characteristic of the appliance. Accordingly, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostic interface configured to adjust a characteristic

of the appliance via the power line carrier communication interface. For at least the reasons above, Claim 12 is respectfully submitted to be patentable over Koether in view of Andruzzi, Jr. et al.

Claims 13-21 depend, directly or indirectly, from independent Claim 12. When the recitations of Claims 13-21 are considered in combination with the recitations of Claim 12, Applicants submit that dependent Claims 13-21 likewise are patentable over Koether in view of Andruzzi, Jr. et al.

Claim 22 recites a diagnostic system for providing access to service diagnostics on an appliance, the system comprising “a local area appliance network coupled to the appliance; a diagnostic interface configured to be connected to said local area appliance network within a building housing the appliance, said diagnostic interface comprising a display, wherein said diagnostic interface facilitates accepting service diagnostics commands destined for the appliance, the diagnostics interface implemented within a single device including a display device, a microprocessor configured to generate the diagnostics commands, and a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line, wherein said diagnostic interface configured to adjust a characteristic of the appliance via said power line carrier modem; and a dedicated appliance controller for receiving and executing the diagnostics commands.”

Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest a diagnostic system for providing access to service diagnostics on an appliance as recited in Claim 22. Specifically, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostic interface configured to adjust a characteristic of the appliance via the power line carrier modem. Rather, Koether describes interrogating a corresponding controller of an appliance, requesting, by the controller, to transmit diagnostic information relating to a plurality of operating conditions of the kitchen appliances, and communicating the diagnostic information to a control center. Koether further describes controlling, by a microprocessor included within a kitchen base station, a

plurality of activities of the base station and communication among the appliances and the kitchen base stations. Accordingly, Koether does not describe or suggest the power line carrier modem as recited in Claim 22. Andruzzi, Jr. et al. describe implementing, by a modem, an amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The ASK/FSK scheme encodes for a logical one, or mark, one unique frequency, or tone, and similarly a logical zero, or space, is designated by the use of a second unique frequency, or tone, in both the transmitting and receiving of data. Furthermore, the ASK/FSK scheme includes receiving the unique logical-one frequency for a set, predetermined period of time which at most is assigned an equivalence of one-half the total digital bit period of the "1". In a like manner, the second, distinct logical-zero frequency, or tone, is held "on" for a period of time less than or equal to one-half the total digital bit period of the "0." A description of implementing the ASK/FSK scheme does not describe or suggest the diagnostic interface configured to adjust a characteristic of the appliance. Accordingly, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostic interface configured to adjust a characteristic of the appliance via the power line carrier modem. For at least the reasons above, Claim 22 is respectfully submitted to be patentable over Koether in view of Andruzzi, Jr. et al.

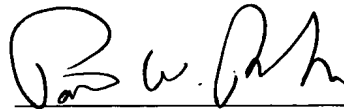
Claims 23-29 depend from independent Claim 21. When the recitations of Claims 23-29 are considered in combination with the recitations of Claim 22, Applicants submit that dependent Claims 23-29 likewise are patentable over Koether in view of Andruzzi, Jr. et al.

For at least the reasons set forth above, Applicants respectfully request that the 103 rejection of Claims 1-5 and 7-29 be withdrawn.

Newly added Claims 30-32 depend from independent Claim 1, which is submitted to be in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claims 30-32 are also patentable over the cited art.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "P. W. Rasche", written over a horizontal line.

Patrick W. Rasche
Registration No. 37,916
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070